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LETTER FINDING THE DRAFT RESOURCE CONSERVATION AND RECOVERY ACT FACILITY INVESTIGATION WORK PLAN ZONES D, F AND G INADEQUATE CNC CHARLESTON SC
5/13/1996
SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL

South Carolina
DHEC
Department of Health and Environmental Control
2600 Bull Street, Columbia, SC 29201

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To Todd	From Tony
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May 13, 1996

Commander Phil Dalby
Officer in Charge, Caretaker Site Office
Naval Facilities Engineering Command, Southern Division
Building NH-45
Charleston Naval Base
Charleston, SC 29408-2020

Re: Draft Zones D, F and G RCRA Facility Investigation
(RFI) Workplan, Dated December 14, 1995
Charleston Naval Shipyard
SC0 170 022 560

Dear Commander Dalby:

The South Carolina Department of Health and Environmental Control (Department) and the U.S. Environmental Protection Agency (EPA) have reviewed the above referenced Draft Zones D, F and G RFI Workplan in accordance with applicable State and Federal Regulations, and the Charleston Naval Shipyard's Hazardous Waste Permit, effective June 5, 1990. Based on this review Charleston Naval Base has not adequately fulfilled the requirements of Permit Condition IV.C.4.

Attached are comments provided by the U.S. Environmental Protection Agency and the Department. Within thirty (30) days upon receipt of this letter, please make the specified changes and resubmit the Report to the Department and U.S. EPA for review.

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Should you have any questions regarding this issue, please contact me at (803) 896-4179.

Sincerely,

Johnny Tapia, Environmental Engineer Associate
Hazardous Waste Permitting Section
Bureau of Solid & Hazardous Waste Management

Attachments

cc: Paul Bergstrand, Hydrogeology
Rick Richter, Trident EQC
Brian Stockmaster, SOUTHNAVFACENGNCOM
Tony Hunt, SOUTHNAVFACENGNCOM
Doyle Brittain, EPA Region IV

COMMENTS ON DRAFT ZONES D, F AND G RCRA FACILITY INVESTIGATION (RFI) WORKPLAN BY THE SOUTH CAROLINA DEPARTMENT OF HEALTH AND ENVIRONMENTAL CONTROL (DHEC) DATED DECEMBER 14, 1995

Comments by:
Johnny Tapia

1. Page 2-22, Table 2-7, describes groundwater as a potential contamination pathway scheduled for sampling. In contrast, the Sampling Plan on page 2-24, Table 2-8, does not show any number of proposed groundwater samples. If data from monitoring wells located at the adjacent Zone E and AOC 613 will be used to determine the need of additional wells for SWMU # 175, a footnote explaining such intentions should be included on Table 2-8, so that the apparent discrepancy is clarified.

2. Page 2-40, Section 2.7.7, reads:
"Groundwater will be addressed by using the analytical data from four of the shallow monitoring wells and one deep well sampled during the AR investigation at AOC 609." On appendix C, the (Assessment Report) AR for AOC 609 identifies 8 groundwater monitoring wells that were used to collect data for the AR. Section 2.7.7 should be more specific and identify which 4 of the 8 monitoring wells will be used as sources of analytical data for AOC 611. In addition, a footnote should be included on table 2-14 to explain why if groundwater is considered as a potential contamination pathway, no samples are proposed for these media.

3. AOC 641 is described on Table 2-45 as part of the Fuel Distribution System (FDS), but on Appendix A "SWMU/AOC Summary", Table A-1 does not include AOC 641. This discrepancy should be corrected.

4. Page 2-130, Section 2.23 "Fuel Distribution System" it reads:
"The FDS and associated SWMUs and AOCs are described on Figure 2-24."
These figure identifies all but AOC 641.

5. On March 11, 1996 the Department was notified about the addition of AOC 706 on Zone G. The site was discovered during sampling for RCRA closure of the Mixed Waste Storage facility, building 246. The site was found to be contaminated with Aroclor 1260. The Department reminds NAVBASE that AOC 706 has to be included in the RFI process and every pertinent information submitted for review.

ENVIRONMENTAL PROTECTION AGENCY COMMENTS ON THE RESOURCE CONSERVATION AND RECOVERY ACT FACILITY INVESTIGATION WORK PLAN FOR ZONES D, F, AND G

1. For each SWMU (Solid Waste Management Unit)/AOC (Area of Concern), include a statement about potential ecological receptors in the "Potential Receptors" section. If there is no potential concern for ecological receptors, say so and tell why (e.g., lack of nearby potentially affected habitat; no potential contaminant migration pathway to habitats of concern).

2. Page vii, Table 2-10: The footnote is missing.

3. Page 1-6, and other places: Mention is made of the use of a Laser-Induced Fluorescence (LIF) technology. Elsewhere (e.g., Page 2-131) this technology is referred to as the Site Characterization Analysis Penetrometer System (SCAPS). It is EPA's understanding that this is still an experimental technology which has not been adequately field tested and approved for field use by the American Society for Testing and Materials (ASTM) or EPA as a reliable field method. Pending acceptance as a field tool, EPA does not agree with the use of this technology in the RFI at Naval Base Charleston.

   EPA recommends that the Draft Zones D, F, and G RFI Work Plan be revised to include only methods which have been agreed to by SCDHEC and EPA in the Comprehensive RFI Work Plan.

4. Page 1-6: In substance, the statement is made that a focused screening investigation *will be conducted* (future tense) using the Laser-Induced Fluorescence technology. However, on Page 2-130, the statement is made that the screening investigation *was conducted in July 1995* (past tense). EPA was surprised to learn in a meeting on April 9, 1996, that this investigation has already been completed and Naval Base Charleston is reviewing the draft report - a report which prior to the April 9, 1996 meeting EPA did not even know existed. This causes EPA several concerns:

   a. Page 1-6 contradicts Page 2-130. Page 1-6 needs to be revised accordingly.

   b. Neither EPA nor the Restoration Advisory Board (RAB) were notified of this investigation before it was conducted nor given the opportunity to have input into the development of the work plan. This is a clear breach of the DOD GUIDANCE ON ESTABLISHING BASE REALIGNMENT AND CLOSURE CLEANUP TEAMS and DOD GUIDANCE ON IMPROVING PUBLIC INVOLVEMENT IN ENVIRONMENTAL CLEANUP AT CLOSING BASES, contained in the Department

of Defense BRAC Cleanup Plan (BCP) Guidebook, Appendix B, Fall 1993.

c. For over three years, EPA has both said and demonstrated on many occasions that EPA will work with Naval Base Charleston in any way possible to "fast-track" the environmental investigation and cleanup at Naval Base Charleston but that all work must be done in accordance with a work plan that has been agreed to by Naval Base Charleston, SCDHEC, and EPA; any work done apart from an approved work plan is done at the Navy's own risk.

5. Page 2-1: The statement is made that

> The Charleston Naval Shipyard (CNSY) Radiological Control Office has stated that the sites within Zones D, F, and G do not have a potential for radioactivity based on knowledge of previous NAVBASE operations.

At this time, the statement could be more appropriately made that

> The Charleston Naval Shipyard (CNSY) Radiological Control Office has completed a radiological survey and cleanup and thereby demonstrated the absence of radioactivity at Naval Base Charleston, with the exception of SWMU 2 which is still active. EPA has already submitted a letter to Charleston Naval Shipyard recommending the release from radiological controls all Naval Base Charleston property, except SWMU 2.

6. Page 2-3, Section 2.1: Table 2-1 mentions that AOC 619 currently has buildings and asphalt pavement. Therefore, include more information about the stressed vegetation observed during the October 1995 site visit (i.e., type of vegetation, location, approximate size of the affected area).

7. Page 2-3, Table 2-1, SWMU 4: Groundwater needs to be added as a pathway to be sampled.

8. Page 2-3, Section 2.1: A list of the known (or most likely) pesticides used at this facility should be compiled. Samples collected at the wash rack and rinse area of this SWMU should subsequently be analyzed for these also.

9. Page 2-5, Section 2.1.6, and throughout the document: The statement is made that:

> Should the proposed collection of the high-quality samples be inadequate to define the areal extent of

> contamination, if present, then the feasibility of employing screening methods will be reevaluated.

This sentence is open to a number of interpretations, some with which EPA does not agree. It needs to be rewritten in a manner which is not open to more than one interpretation.

10. Page 2-7, Section 2.1.7: The proposed soil boring locations should include the areas of stained soil and stressed vegetation. (Page 2-3, Section 2.1). (The text is not clear on this point.)

11. Page 2-11, Section 2.2.4: Although potential discharge of metals in ground water to the Cooper River is the most likely ecological concern for SWMU 36 and AOC 620, groundwater data for organic contaminants must also be screened for potential ecological concerns.

12. Page 2-13, Section 2.2.7: For screening purposes and groundwater stabilization parameters, a field calibrated pH meter is sufficient. If past acid spills have affected groundwater pH, additional samples and laboratory based pH measurements will be required.

13. Page 2-26, Figure 2-5: This figure indicates that no groundwater sampling will be performed at this SWMU, which is at odds with Table 2-7. Groundwater sampling is needed for this SWMU. If this is planned, but the locations are currently unknown, a note on the figure should explain this.

14. Page 2-31, Table 2-10: This table indicates that four sediment samples will be collected for AOC 607, but only three sediment sampling locations are shown in Figure 2-6, Page 2-30. Check this discrepancy.

15. Page 2-33, Table 2-11, AOC 609: Groundwater is a pathway that needs to be sampled.

16. Page 2-37, AOC 609: It says:

> Four soil borings at locations directly adjacent to the location of the waste oil UST are proposed to assess the nature and extent of soil contamination at AOC 609.

EPA is unable to envision how four closely spaced samples could assess the extent of contamination. The grid based sampling scheme should address extent whereas the SWMU- or AOC-specific sampling should address the nature and intensity of contamination.

17. Page 2-53, Figure 2-10: Groundwater monitoring is needed at this AOC.

18. Page 2-67, Table 2-64, AOC 6-33: If no grid-based sampling points exist between Building 451-C and AEC-IV-1 in the open field, additional sampling points should be placed here. PCBs are transported by surface runoff and these additional sampling locations would address this possibility.

19. Page 2-60, Figure 2-12: Groundwater monitoring is needed at this AOC.

20. Page 2-67, Section 2.12.7: For clarity, mention that all six sediment sampling locations for AOC 633 are shown on Page 2-73, Figure 2-14.

21. Page 2-78, Figure 2-15: Samples collected at this AOC must be analyzed for the high explossives and propellants believed to be disposed there.

22. Page 2-79, Section 2.15: Indicate the type of surface in the current parking lot at AOC 642 (i.e., asphalt or cement pavement, gravel, dirt, grass).

23. Page 2-79, AOC 642: This AOC was operated as a pistol range during the 1940's. The description is scant. Is the area now paved? Has grass grown? Is lead shot visible on the surface? Details should be added to the site description.

24. Page 2-87, AOCs 636 and 637: Because torpedo storage occurred here, it would be prudent to consider Special Analytical Services (SAS) to detect the toxic compounds used in torpedoes, e.g. RDX, Ottofuel, etc. Historical details of torpedo disposal practices should be used to determine which samples are sent for SAS.

25. Page 2-92, Figure 2-17: Samples collected at AOC 636 must be analyzed for the HE and propellants believed to be disposed there.

26. Page 2-111, Section 2.20: A list of the known (or most likely) pesticides used at this facility should be compiled. Samples collected from this SWMU should subsequently be analyzed for these also.

27. Page 2-119, SWMU 7: It says:

> Generally low concentrations of PCBs and pesticides were detected. PCB concentrations ranged from nondetect to a maximum of 62 µg/gm.

62 µg/g is considered a high concentration of PCBs and the two sentences seem illogical. They should be rewritten. In addition, the abbreviation of "gram" is "g" not "gm."

28. Page 2-135: The text indicates that direct push technology would be used to sample at depths up to 35 feet below ground surface. Is this possible at a coastal location such as Charleston? How will the presence of groundwater at these depths alter the detection of petroleum products? These points should be made clear in the text.

29. Page 2-137, Section 2.23.7: Figure 2-24 shows storm drains in the vicinity of tanks located at AOC 629 (POL Unloading Facility). Will these and other storm drains along the Fuel Distribution System be sampled, or will such sampling depend upon the outcome of the screening investigation?

30. Page 3-1, Systematic Sampling Plan: It says:

> The preliminary understanding of groundwater flow direction indicates that most of the proposed grid-based wells are downgradient of many contaminant sources. They most often will be used as reference wells to help delineate the extent of contaminant migration or to detect any point sources that the RFA process has not documented.

EPA has difficulty with the choice of the word "reference." There is the possibility that these wells could be considered to be background from the use of the word. Clearly, this would be a wrong inference. Another word should be chosen. Perhaps they should be called "delineation" wells.

31. Page 6-1: The 1996, rather than the 1994, Draft Environmental Baseline Survey should be cited.